

ABSTRACT

A process for the high-yield recovery of ethylene and heavier hydrocarbons from the gas produced by pyrolysis of hydrocarbons in which the liquid products resulting from the fractionated condensation of a cracking gas for the recovery of almost all the ethylene, are supplied to a distillation column, called the de-ethanizer, at different intermediate levels. At the top of the de-ethanizer the vapor of the column distillate is treated directly in an acetylene hydrogenation reactor, the effluent containing virtually no acetylene being separated by a distillation column called the de-methanizer, into an ethylene- and ethane-enriched tail product, while the head product is recycled by compression or treated for subsequent recovery of ethylene.